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WHAT IS CLAIMED IS:

1. A flow spreading mechanism comprising:
at least one inlet through which a fluid flow is introduced;
a flow separating means for separating the fluid flow introduced through the
5 at least one inlet into at least two fluid flows; and
an outlet for discharging at least two of the at least two fluid flows, which
are divided by the flow separating means and joined together thereafter,
wherein complex vortices are formed adjacent to the outlet and thus, the
fluid flow being discharged through the outlet swings while proceeding.
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2. The flow spreading mechanism of claim 1, wherein the flow separating
means comprises a plurality of conduits for providing the flow introduced from the
inlet with flow paths.
- 15 3. The flow spreading mechanism of claim 2, wherein the number of the
inlets is the same as that of the conduits, and each inlet corresponds to each conduit.
4. The flow spreading mechanism of claim 2, wherein the flow separating
means comprises two conduits.
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5. The flow spreading mechanism of claim 1, wherein the flow separating
means comprises a conduit to form a flow path between the inlet and the outlet, and a
blunt body placed inside the conduit to form two separated flow paths inside the
conduit.
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6. The flow spreading mechanism of claim 5, wherein the two separated flow paths are formed extending in a part of the conduit.

7. The flow spreading mechanism of claim 6, wherein the two separated
5 flow paths are formed adjacent to the outlet in the conduit.

8. The flow spreading mechanism of claim 7, wherein the blunt body is a plate which is substantially perpendicular to the direction of the flow inside the conduit.

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9. The flow spreading mechanism of claim 7, wherein the blunt body is columnar with its longitudinal axis substantially perpendicular to the direction of the flow inside the conduit.

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10. The flow spreading mechanism of claim 7, wherein the ends of the conduit on the side of the outlet are symmetrically bent toward the center of the conduit so that the width of the outlet is smaller than the width of the conduit.

11. The flow spreading mechanism of claim 10, wherein
20 The blunt body is a plate which is substantially perpendicular to the direction of the flow inside the conduit, and the width of which is uniform.

12. The flow spreading mechanism of claim 11, wherein the interval between the plate and the outlet is set smaller than the width of the outlet such that
25 the flow path from the both sides of the plate to the outlet functions as nozzles.

13. The flow spreading mechanism of claim 11, wherein the plate and the outlet have the same width, and the inlet has the same width as the width of the plate and the outlet.

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14. The flow spreading mechanism of claim 13, wherein the length of the portion of the conduit having a different width from the width of the inlet is 1 to 1.5 times the width of the inlet, and the width of the portion is 2 to 2.5 times the width of the inlet.

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15. The flow spreading mechanism of claim 14, wherein the interval between the plate and the outlet is about 0.5 times the width of the outlet.

16. The flow spreading mechanism of claim 1, wherein the outlet is installed in a space, and wherein the flow spreading mechanism further comprises at least one sink installed at a predetermined location inside the space, the sink comprising an opening for discharging the fluid inside the space to the outside.

17. The flow spreading mechanism of claim 16, wherein the number of the at least one sink is even-numbered, and each pair of the sinks are installed to face each other in a line traverse to the movement direction of the flow discharged through the outlet.

18. The flow spreading mechanism of claim 13, wherein the outlet is installed in a space, and wherein the flow spreading mechanism further comprises at

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least one sink installed at a predetermined location inside the space, the sink comprising an opening for discharging the fluid inside the space to the outside and having the same width as the width of the plate.

5 19. A heat exchanger comprising a flow spreading mechanism as claimed in any one of claims 1 to 18.

 20. A refrigerator comprising a flow spreading mechanism as claimed in any one of claims 1 to 18.

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 21. An air conditioner comprising a flow spreading mechanism as claimed in any one of claims 1 to 18.